“Net-Centricity”
Key to Transformation

“The two truly transforming things, conceivably, might be in information technology and information operation and networking and connecting things in ways that they function totally differently than they had previously.”

Hon Donald Rumsfeld

Emerging DoD Strategy

ASD C3I Net-Centric Principles

- "Post" Data as early and as widely as possible
- Empower Users to pull *whatever* they want
- Clearly identify Data maintenance authorities
- Decompose Data Management
  - Communities of Interest (COIs)*
  - Build-Time *and* Run-Time
- Exploit Market Forces
  - Visibility (Allows data producers and consumers to find each other)
  - Supply and Demand ("Incentivizes" timely, high quality production)
  - Market Metrics (Allows adjustments for investment to follow value)

TASK - POST - PROCESS - USE (TPPU) …

*Frequent information trading partners (Variable in scope, focus, composition and longevity; e.g., Standing or Ad Hoc)

Task - Post - Process - Use

TPPU Actions
Parallel v. Sequential

Net-Centricity Payoffs

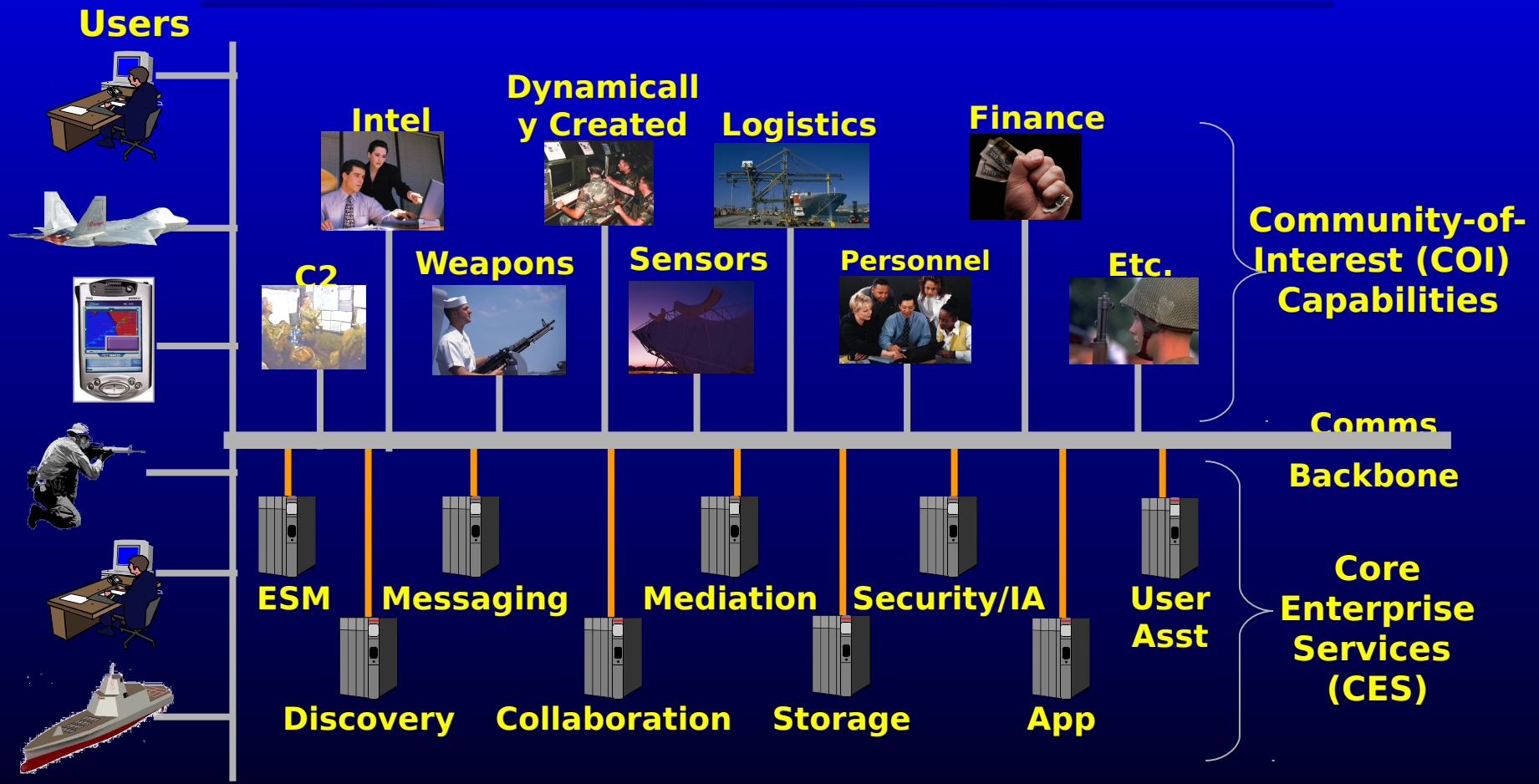
- **Faster Decision Making/TPPU cycles**
- **Smarter Decisions based on . . .**
  - **Access to more quality information**
- **Better Collaboration based on . . .**
  - **Shared Battlespace Awareness**

TPPU Coming Soon!

Robust Net-centric Force

“Smart” Nets with <u>Services</u> that enable Precision Search, Efficient Information Pull, and Collaborative

Net-Centric Enterprise Services (NCES)



Supports real-time & near-real-time warrior needs, and business users

Core Enterprise Services*

- Enterprise Systems Management (ESM)
  - **Provides end-to-end GIG performance monitoring, configuration management, and problem detection/resolution as well as enterprise IT resource accounting and addressing (e.g., for users, systems, devices)**
- Messaging
  - **Ability to exchange information among users or applications on the enterprise infrastructure (e.g., Email, DMS, VMF, USMTF, TADIL, OTH, Message Oriented Middleware, AOL instant messenger, Wireless Services, Alert Services)**
- Discovery
  - **Processes for discovery of information content or services that exploit metadata descriptions of IT resources stored in Directories, Registries, and Catalogs (includes search engines)**
- Mediation
  - **Services that help broker, translate, aggregate, fuse or integrate data**

***CES**

CES (cont'd)

- Collaboration
  - **Allows users to work together and jointly use selected capabilities on the network (i.e., chat, online meetings, work group software etc.)**
- User Assistant
  - **Automated "helper" capabilities that reduce effort required to perform manpower intensive tasks**
- Security
  - **Capabilities that address vulnerabilities in networks, infrastructure services, or systems**
- Storage Services
  - **Physical and virtual places to host data on the network with varying degrees of persistence (e.g., archiving, COOP, content staging)**
- Application
  - **Infrastructure to host and organize distributed on-line processing capabilities**

NCES Demo

Application Services

Enterprise System Management Services

Storage Services

Discovery Services

Security Services

Messaging Services

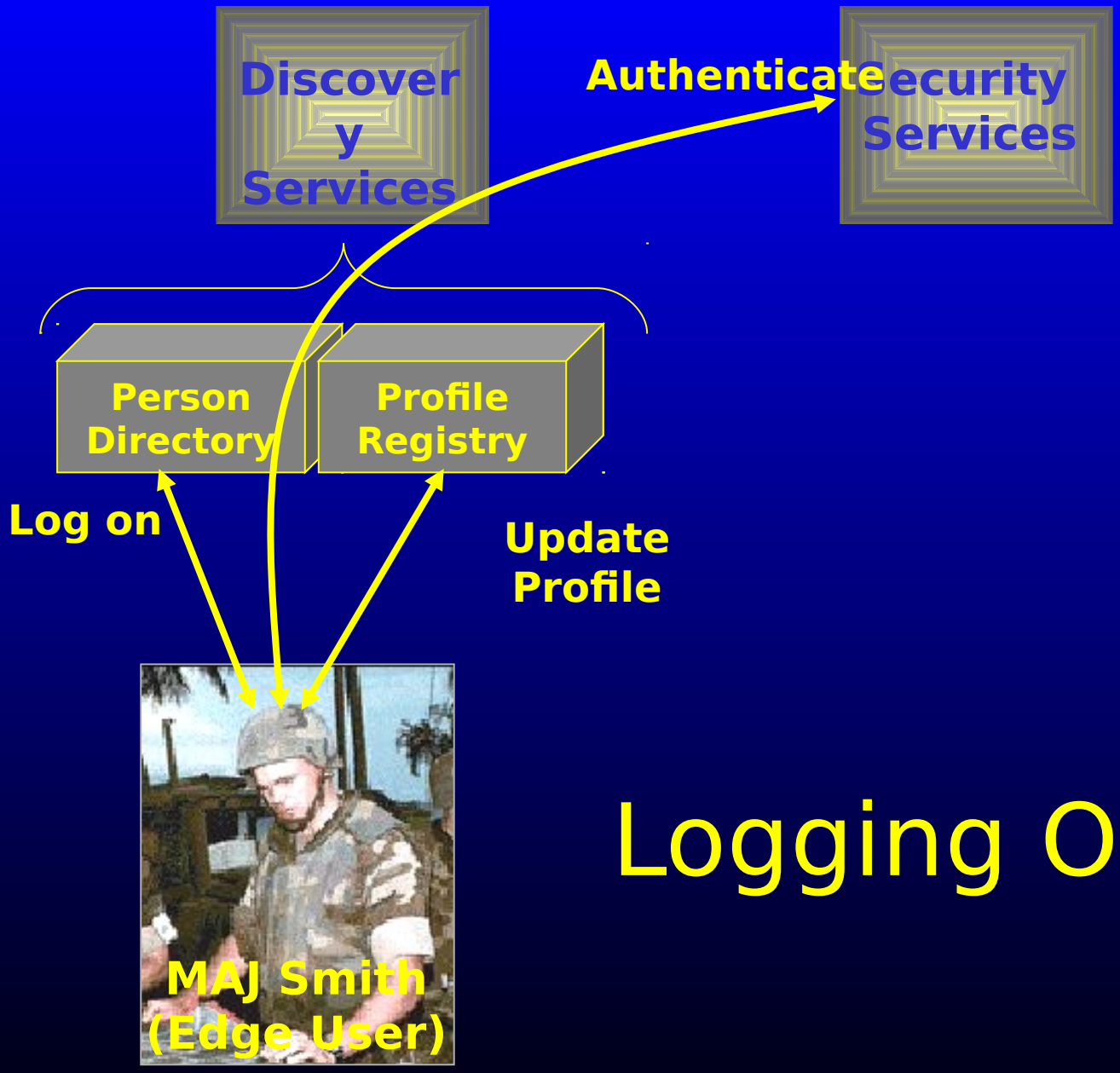
Collaboration Services

User Assistant Services

Mediation Services

Primary Focus

Logging On



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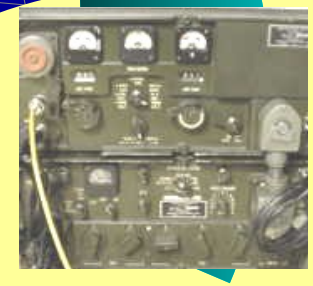
Posted
SIGINT Data

Raw Data

Alert
Message

Smart
Pull

Possible enemy emitter detected at specific geo location



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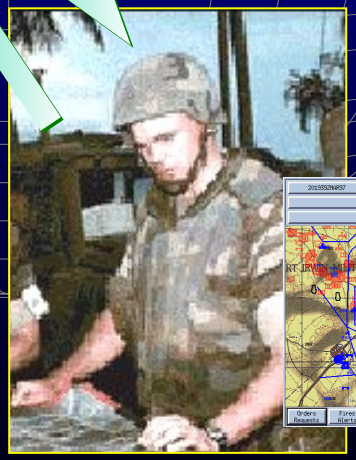

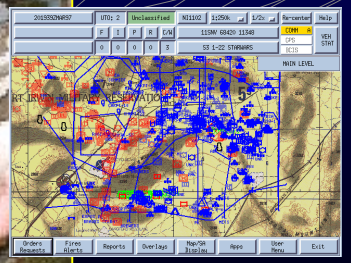

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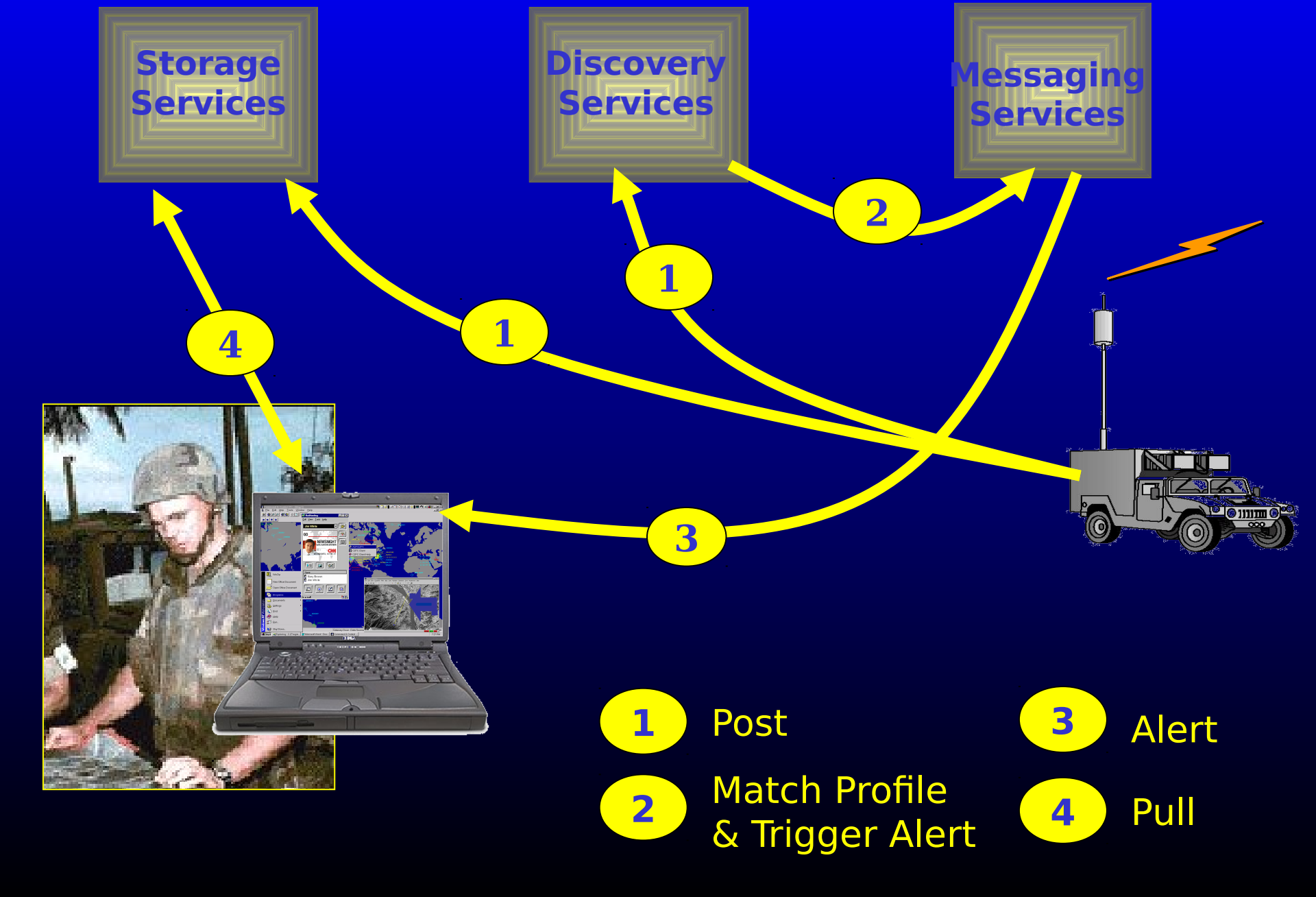
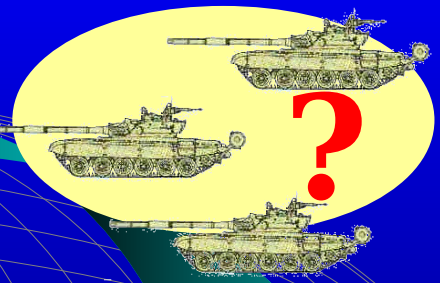

Storage Services
Discovery Services
Messaging Services
1
2
3
4
1
1 Post
2 Match Profile & Trigger Alert
3 Alert
4 Pull



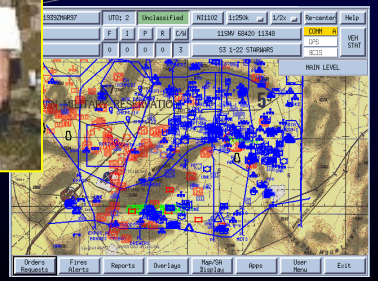
Exploited ISR Data

Notification

Smart Pull

Tactical Exploitation

Emission associated with enemy tank units.



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Storage Services

Discovery Services

Messaging Services

1 Alert w/Report

2 Post

3 Match Profile & Trigger

4 Notify

5 Pull

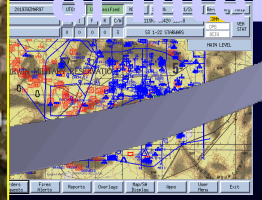
Strike Pkg

- Requests Strike Acft (Stand-by)
- Tasks ISR Assets

Recon Team

Fusion Center

C2I Community of Interest



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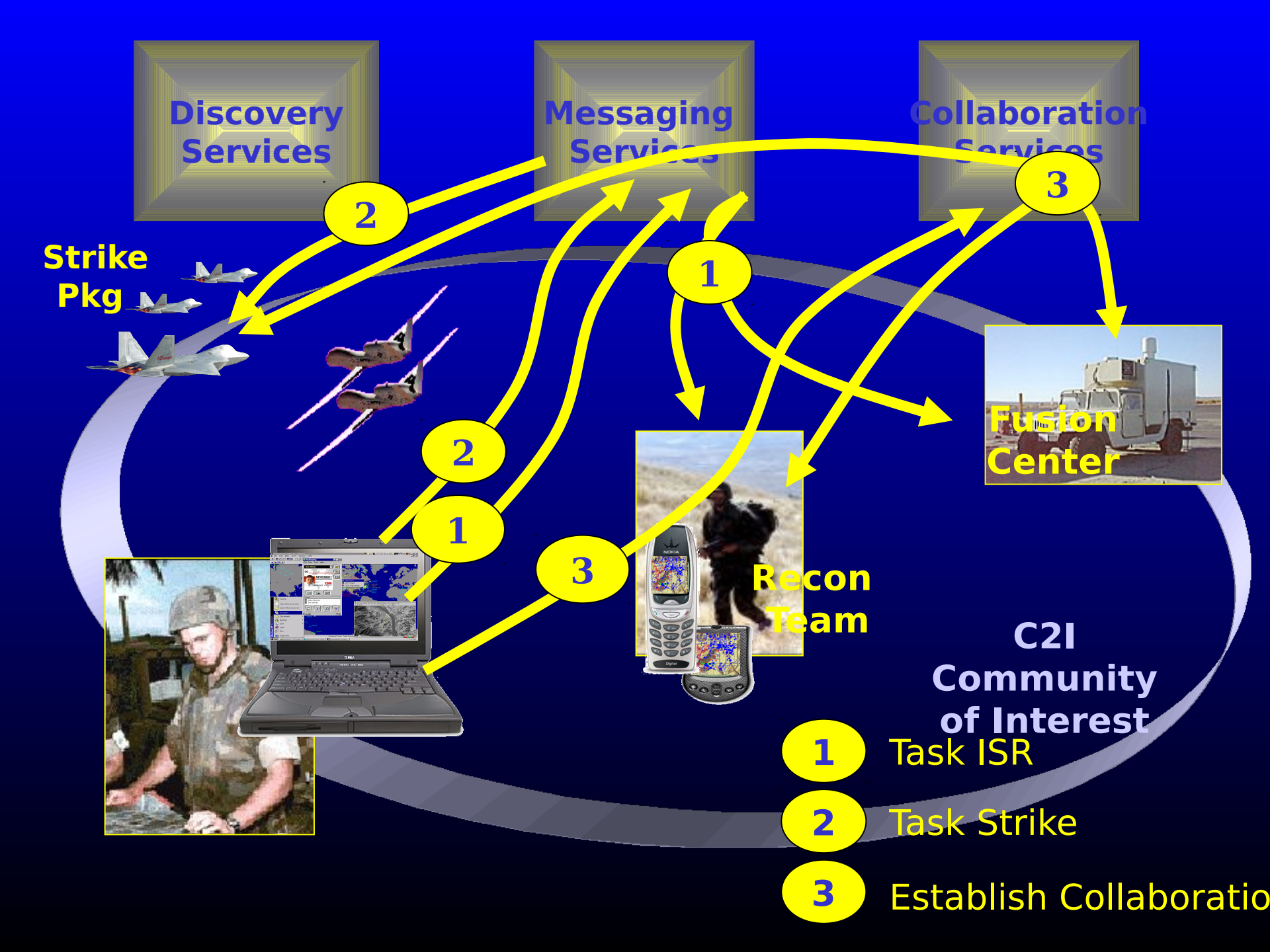
Establishes COI (Collaboration)


Discovery Services
Messaging Services
Collaboration Services
Strike Pkg
2
3
1
2
1
3
Fusion Center
Recon Team
C2I Community of Interest
1 Task ISR
2 Task Strike
3 Establish Collaboratio

Storage Services

Discovery Services

Messaging Services

6

7

5

4

C2I Community of Interest

4 Request Asset

6 Tasking

5 Found Assets

7 Post

Reaching back to subject matter experts

CIA

CIA analyst –
"… unlikely to be armored column; possible deception"

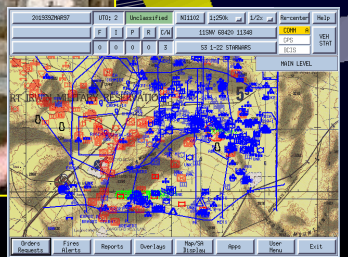
Video of Vehicle Convoy

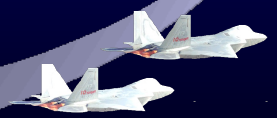
Fusion Center

"I see 2 Red Cross trucks"

Recon Team

"No enemy above small unit strength in area past 30 days"





Strike Pkg

Coalition Partners

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Security Services

Discovery Services

Collaboration Services

4

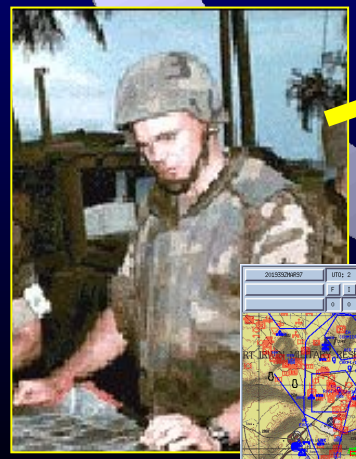
2

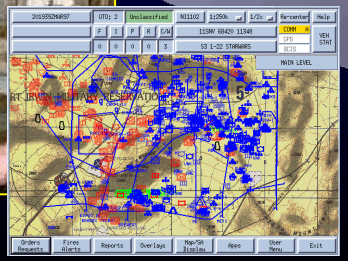
3

4

1

Coalition





1 Requests Experts

2 Discovers CIA & Coalition Experts

3 Adds CIA Expert

4 Adds Coalition Expe

Security Services

Mediation Services

Collaboration Services

1

1

2

1

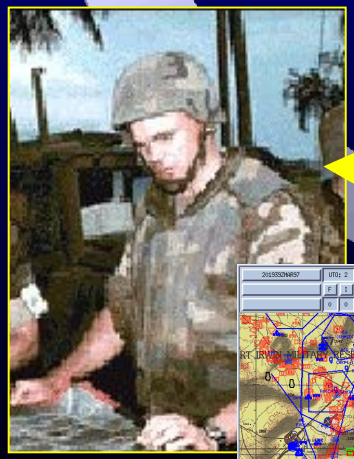
1

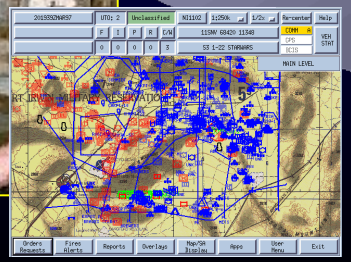
3

Coalition

Recon Team

Fusion Center





1 Report

2 Deliver Transformed Dat

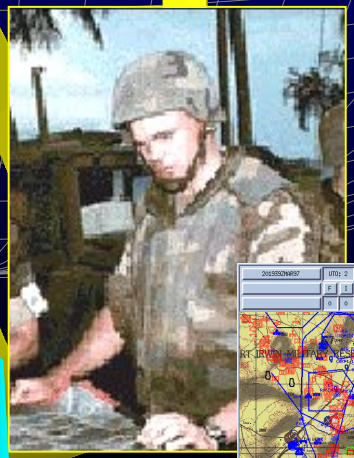
3 Share Estimate

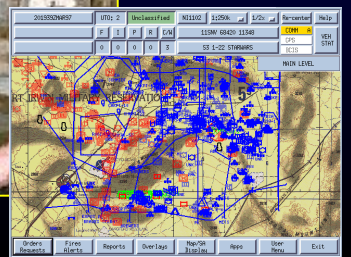
Fusion Center

“Two relief agency vehicles are churning up a dusty road and communicating with tank radios.”

“Roger ”

“Target not Hostile”





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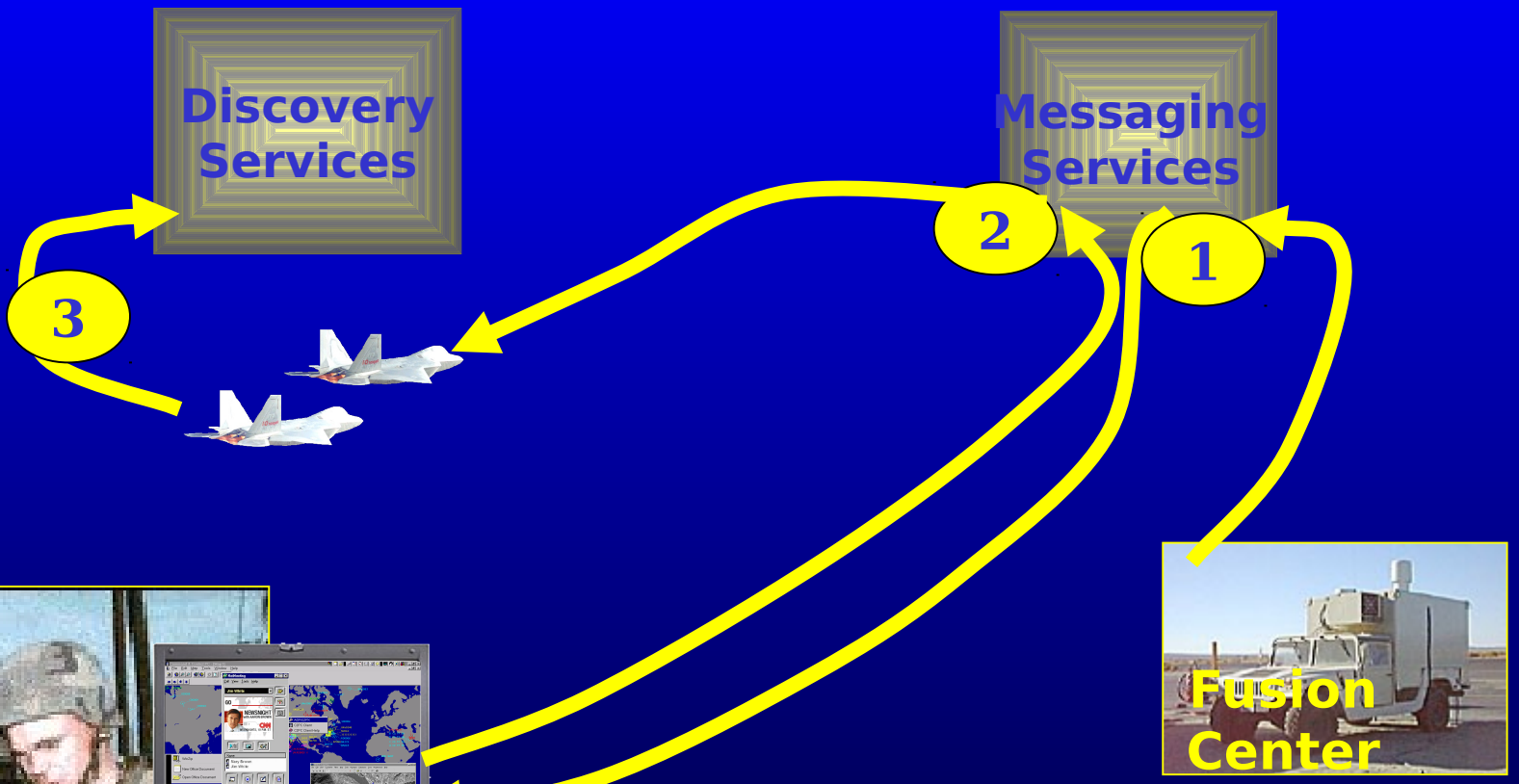

1 Target Not Hostile

2 Mission Abort

3 Register Egress

What It All Means ….

"… possibly the single-most transforming thing in our force will not be a weapon system, but a set of interconnections and a substantially enhanced capability because of that awareness."

Hon Donald Rumsfeld - Aug 9, 2001